Report for 2001TX3201B: Sublethal Effects of Cadmum and Linear Alkylbenzene Sulfonate Mixtures on Pimephales promelas Exposure and Effect Endpoints: Laboratory and Field Assessments

- Conference Proceedings:
  - Brooks, B.W., P.K. Turner, J. Weston, E.Glidewell, C.M. Foran, M. Slattery, D.B. Huggett, TIE and TMDL Approaches for Legacy Sediment Contaminants: Aresenic and Petrochemical Case Studies, presented at 2002 Annual meeting of the Society of Environmental Toxicoloyg and Chemistry, Salt Lake City, Utah.
- Other Publications:
  - Brooks, B.W., P.K. Turner, J. Weston, E.Glidewell, C.M. Foran, M. Slattery, D.B. Huggett, Waterborne and sediment toxicity of fluoxetine (Prozac) to selected organisms, Poster, 2002 Annual meeting of Society of Environmental Toxicology and Chemistry, Salt Lake City, UT
- unclassified:
  - Brooks, B.W., P.K. Turner, J. Weston, E.Glidewell, C.M. Foran, M. Slattery, D.B. Huggett, Fathead minnow resopnses to Cadmium in effluent-dominated streams, 2002, Poster presented at 2002 Annual Meeting of the Society of Environmental Toxicology and Chemistry, Salt Lake City, Utah

Report Follows:

Sublethal Effects of Cadmum and Linear Alkylbenzene Sulfonate Mixtures on Pimephales promelas Exposure and Effect Endpoints: Laboratory and Field Assessments

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Biologists at the University of North Texas (UNT) and the city of Denton have recently developed a research facility that will facilitate the study of how pollutants may affecting water quality in lakes, rivers, aquatic habitats, and wetlands in the region. The UNT Experimental Stream Facility opened in May. The center is located at the City of Denton Pecan Creek Wastewater Management Plant. Tom LaPoint, the Director of the UNT Institute for Applied Sciences, heads a team of scientists who conduct studies at the site.

The research center consists of 12 man-made "streams" that imitate natural rivers found throughout the region. Each experimental stream is 16 feet long and two feet wide. To mimic real world conditions, the streams were built with a gravel substrate, and pools were placed at the end of each stream segment. Water is supplied by the wastewater plant. A variety of aquatic organisms (including insects, larvae, snails, invertebrates, and fish) was obtained from Pecan Creek for use in this system. Wastewaters that flow through the facility will be rout routed back to the treatment plant to prevent possible contamination.

Throughout the summer of 2000, LaPoint and colleagues have been using this site to study how pollutants affect aquatic life in the surface waters. Minnows, bluegill sunfish, and other fish have been added to the downstream pools, where they have been exposed to contaminants throughout a 30- to 60-day period. Changes in the growth, behavior, and mortality of fish at the research site are being compared to laboratorystudies in which fish are exposed to individual contaminants.